



TABLE 1. PYONGYANG TRANSMISSION DEPARTMENT POWER LINES

NAME OF LINE	SECTION TERMINALS		VOLTAGE (KV)	EXACT LENGTH (KM)	ELECTRIC WIRE*	
	FROM:	TO:			MATERIAL	THICKNESS (MM)
NO 1 PYONGYANG	HAECH'ONG	NO 1 PYONGYANG	154	149.9	STEEL CORE ALUMINUM	ST 7/3.1** AL 30/3.1
SEOUL	NO 1 PYONGYANG	38TH PARALLEL (SEOUL)	154	135.5 (187.5)	STEEL CORE ALUMINUM	ST 7/2.9 AL 30/2.9
NO 2 PYONGYANG	SUP'UNG	NO 2 PYONGYANG	220	179.5	STEEL CORE ALUMINUM	ST 7/2.82 AL 54/2.82
UNSAN	SONGYANG	UNSAN	154	60.3	STEEL CORE ALUMINUM	ST 7/3.1 AL 30/3.1
NAMP'YO	NO 2 PYONGYANG	NAMP'YO	220	39.5	STEEL CORE ALUMINUM	ST 7/2.82 AL 54/2.82
TASADO	SUP'UNG	TASADO	220	74.9	STEEL CORE ALUMINUM	ST 7/2.82 AL 54/2.82
CONNECTING LINE	NO 1 PYONGYANG	NO 2 PYONGYANG	154***	17.3	BARE HEAVY COPPER	19/4

\* POWER LINES ARE CARRIED ON STEEL TOWERS.

\*\* ST 7/3.1 AL 30/3.1 MEANS SEVEN STEEL STRANDS, EACH OF WHICH IS 3.1 MILLIMETERS THICK, AND 30 ALUMINUM STRANDS, EACH OF WHICH IS 3.1 MILLIMETERS THICK.

\*\*\* AT PRESENT, 66 KILOVOLTS ARE TRANSMITTED.

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TABLE 2. PYONGYANG TRANSMISSION DEPARTMENT TRANSFORMERS

NAME OF TRANSFORMER STATION	POWER OUTPUT (KVA)	DESCRIPTION OF TRANSFORMER			
		POWER PER TRANSFORMER (KVA)	PHASE	PRIMARY VOLTAGE (KV)	SECONDARY VOLTAGE (KV)
NO 1 PYONGYANG					
SET A	90,000	15,000x7*	1	154	66
SET B	1,500	500x3*	1	11	3.3
SET C	2,250	750x3*	1	66	3.3
NO 2 PYONGYANG					
SET A	200,000	100,000 $\sqrt{2}$	3	220	66
SET B	3,500 $\sqrt{3} \cdot \sqrt{2}$	1,350x4*	1	66	22
SET C	900	300x3	1	22	3.3
UNSAE					
SET A	34,500	19,500x1 15,000x1	3 3	154 154	66 66
SET B	1,200	400x3	1	22	3.3
NAMPYO	100,000	100,000 $\sqrt{2} \cdot \sqrt{17}$	3	220	66
TASADO	200,000	100,000x2	3	220	66

\* ONE TRANSFORMER IN EACH SET IS HELD IN RESERVE.  $\sqrt{2}$  ALTHOUGH THE SOURCE STATES THAT ONE TRANSFORMER EACH IN SETS B AND C IS HELD IN RESERVE, IT APPEARS FROM THE OUTPUT FIGURES THAT THE RESERVE TRANSFORMERS ARE IN USE.

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TABLE 3. PYONGYANG TRANSMISSION DEPARTMENT TELEPHONE LINES

NAME OF LINE	SECTION TERMINALS		EXACT LENGTH (KM)	NO OF CIRCUITS	TELEPHONE WIRE	
	FROM:	TO:			KIND OF MATERIAL	THICKNESS (MM)
NO 1 PYONGYANG	HAGICH'ON	PYONGYANG	217.8	2	BARE HEAVY COPPER GALVANIZED IRON WIRE	3.2 4
SEOUL	PYONGYANG	SEOUL	219.1	2	BARE HEAVY COPPER GALVANIZED IRON WIRE	3.2 4
NO 2 PYONGYANG	SUP'UNG	NO 2 PYONGYANG	195.4	2	BARE HEAVY COPPER GALVANIZED IRON WIRE	3.2 4
UNSAN	SONGYONG	UNSAN	70.2	2	STEEL CORE ALUMINUM GALVANIZED IRON WIRE	ST. 1/1.8 AL. 7/1.8 4
NAMP'Ŏ	NO 2 PYONGYANG	NAMP'Ŏ	42.5	2	BARE HEAVY COPPER GALVANIZED IRON WIRE	3.2 4
TASADO	SUP'UNG	TASADO	81.3	2	BARE HEAVY COPPER GALVANIZED IRON WIRE	3.2 4
CONNECTING LINE	NO 2 PYONGYANG	NO 1 PYONGYANG	20.8	3	STEEL CORE ALUMINUM	ST. 1/1.8 AL. 6/1 3.2 MM 4MM

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Under P'yongyang Transmission Department

<u>District and Station</u>	<u>Tower Numbers</u>	<u>Distance</u> (km)	<u>Transmission Line</u>
<u>Songyang District</u>			
Hagich'on	1-18	6.00	No 1 P'yongyang Transmission Line
Sinp'ung	19-47	9.00	
Tokko-ri	48-75	8.00	
Chunghung	76-102	8.00	
Sach'ang-ni	103-123	7.00	
Inch'o-ri	124-155	9.00	
Onyang-ni	156-200	13.00	
Samgo-ri	201-231	11.00	
Yongwon	232-289	15.00	
Songyang	270-330	13.00	
<u>No 1 P'yongyang District</u>			
Pukch'ang	331-381	14.05	
Kach'ang-ni	382-415	12.45	
Sinch'ang-ni	416-470	19.05	
Yongt'aeng-ni	471-514	14.85	
Kwangdong-ni	515-568	18.35	
Nosan-ni	569-610	16.25	
P'yongyang	611-622	4.54	
<u>No 1 P'yongyang District</u>			
P'yongyang	1-36	10.20	Seoul Transmission Line
Ma-jang-dong	37-96	18.80	
Yu-ri	97-130	12.40	
Tumu-ri	131-156	11.80	
Sindang-ni	157-189	19.50	

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<u>District and Station</u>	<u>Tower Numbers</u>	<u>Distance (km)</u>	<u>Transmission Line</u>
<u>No 1 P'yongyang District</u>			
Chungch'ong	190-212	8.20	Seoul Transmission Line
Nogan-ni	213-243	11.70	
<u>Namch'on Switching Station District</u>			
Namch'on	244-280	14.00	
Wonu-dong	281-311	12.00	
Kilsu-ri	312-337	12.00	
Hwajang	338-357	11.00	
Kyongnung	358-406	16.10	
Munsan	407-456	15.80	
Kwansan	457-504	15.60	
Susaeng-ni	505-526	7.90	
<u>No 2 P'yongyang District</u>			
Sup'ung	1-13	5.00	No 2 P'yongyang Transmission Line
Sakchu	14-34	8.00	
Onp'ung-dong	35-53	8.00	
Ch'angsin-dong	54-82	11.00	
Tae'an-dong	83-113	12.00	
Ch'onjin-dong	114-134	8.00	
Kusong	135-167	12.00	
Naeha-dong	168-197	10.00	
T'aech'on	198-226	12.00 *	
Pakch'on	3-54	18.20 **	
Yongni	227-271	16.00 ***	
Mansong	272-317	16.00 ****	
Sukch'on	318-354	16.20	

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<u>District and Station</u>	<u>Tower Numbers</u>	<u>Distance (km)</u>	<u>Transmission Line</u>
<u>No 2 P'yongyang District</u>			
Sogam	365-389	13.30	No 2 P'yongyang Transmission Line
Yongjang	390-437	13.00	
Choch'on	438-462	6.80	
<u>Unsan District</u>			
Songyang	1-20	7.00	Unsan Transmission Line
Tokch'on	21-49	12.60	
Somin-dong	50-68	8.70	
Kujang-dong	69-112	15.80	
Kosong-dong	113-141	9.80	
Unsan	142-162	6.40	
<u>Namp'o District</u>			
Choch'on	1-11	4.70	Namp'o Transmission Line
Taep-yong	12-30	6.80	
Kiyang-ni	31-62	13.70	
Ipsong-ni	63-85	7.90	
Namp'o	86-102	6.40	
<u>Tasado District</u>			
Sup'ung	1-15	6.20	Tasado Transmission Line
Pup'yong-dong	16-23	6.80	
Toryong-dong	29-51	9.40	
Isong-dong	52-71	8.70	
Waryong-dong	72-95	10.40	
UiJu	96-115	7.90	
Ssanghak-tong	116-142	11.40 *****	
Ibam-dong	143-170	9.80	
Pukchung	171-175	4.50	

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<u>District and Station</u>	<u>Tower Numbers</u>	<u>Distance (km)</u>	<u>Transmission Line</u>
<u>Connecting Line</u>			
No 2 P'yongyang	1-28	6.50	Connecting Trans- mission Line
No 1 P'yongyang	29-64	10.50	

\* Revised distance from No 128 to No 1 is 305 meters.

\*\* Revised distance from No 8 to No 54 is 18.8 kilometers.

\*\*\* Revised distance from No 2 to No 85 is 2.6 kilometers.

\*\*\*\* Revised distance from No 55 to No 78 is 7.8 kilometers.

\*\*\*\*\* 11.20 kilometers, according to Chart No 1.

## List of Place Names

	<u>Lat N</u>	<u>Long E</u>
Ch'angsin-dong	40 14	125 07
Ch'onjin-dong	40 03	125 14
Choch'on	39 02	125 40
Hwajang	38 04	126 39
Ibam-dong	40 01	124 26
Inch'o-ri	40 04	126 52
Ipsong-ni	38 50	125 26
Isong-dong	40 18	124 46
Kach'ang-ni	39 32	126 17
Kilsu-ri	38 09	126 35
Kiyang-ni	38 55	125 32
Kosong-dong	39 53	125 53
Kujang-dong	39 52	126 01
Kusong	39 59	125 15
Kwangdong-ni	39 12	125 57
Kwansan	37 42	126 52
Kyongnung	38 00	126 40

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	<u>Lat N</u>	<u>Long E</u>
Majang-dong	38 52	125 56
Mansong	39 30	125 35
Munsan	37 51	126 47
Naeha-dong	39 54	125 23
Naech-on	38 20	126 24
Nogan-ni	38 27	126 20
Nosan-ni	39 05	125 52
Onp'ung-dong	40 18	125 04
Onyang-ni	39 59	126 46
Pakch'on	39 44	125 35
Pukch'ang	39 35	126 20
Pukchung	39 57	124 26
Pup'yong-dong	40 23	124 54
P'yongyang No 1	39 01	125 44
P'yongyang No 2	39 00	125 46
Sach'ang-ni	40 06	126 55
Sakju	40 23	125 03
Sango-ri	39 59	126 23
Sinch'ang-ni	39 25	126 08
Sindang-ni	38 35	126 14
Sinp'ung	40 08	127 13
Somin-dong	39 53	126 10
Songyang-ni	39 24	125 31
Ssanghak-tong	40 00	124 32
Susaeng-ni	37 35	126 53
Sukch'on	39 25	125 37
Sup'ung	40 27	124 57
Tacan-dong	40 09	125 13
T'aech'on	39 55	125 30

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	<u>Lat N</u>	<u>Long E</u>
Taep'yong	38 59	125 37
Tasado	39 51	124 26
Tokch'on	39 45	126 18
Tokko-ri	40 07	127 08
Toryong	40 21	124 51
Tumu-ri	38 40	126 06
Uiju	40 12	124 32
Unsan	39 58	125 48
Waryong-dong	40 14	124 40
Wonu-dong	38 13	126 32
Yongjang-ni	39 29	125 30
Yongmi	39 40	125 31
Yongt'aeng-ni	39 19	126 04
Yongwon	39 35	125 52
Yu-ri	38 46	126 01

[See Chart 1 and Chart 2 on following pages.]

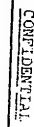
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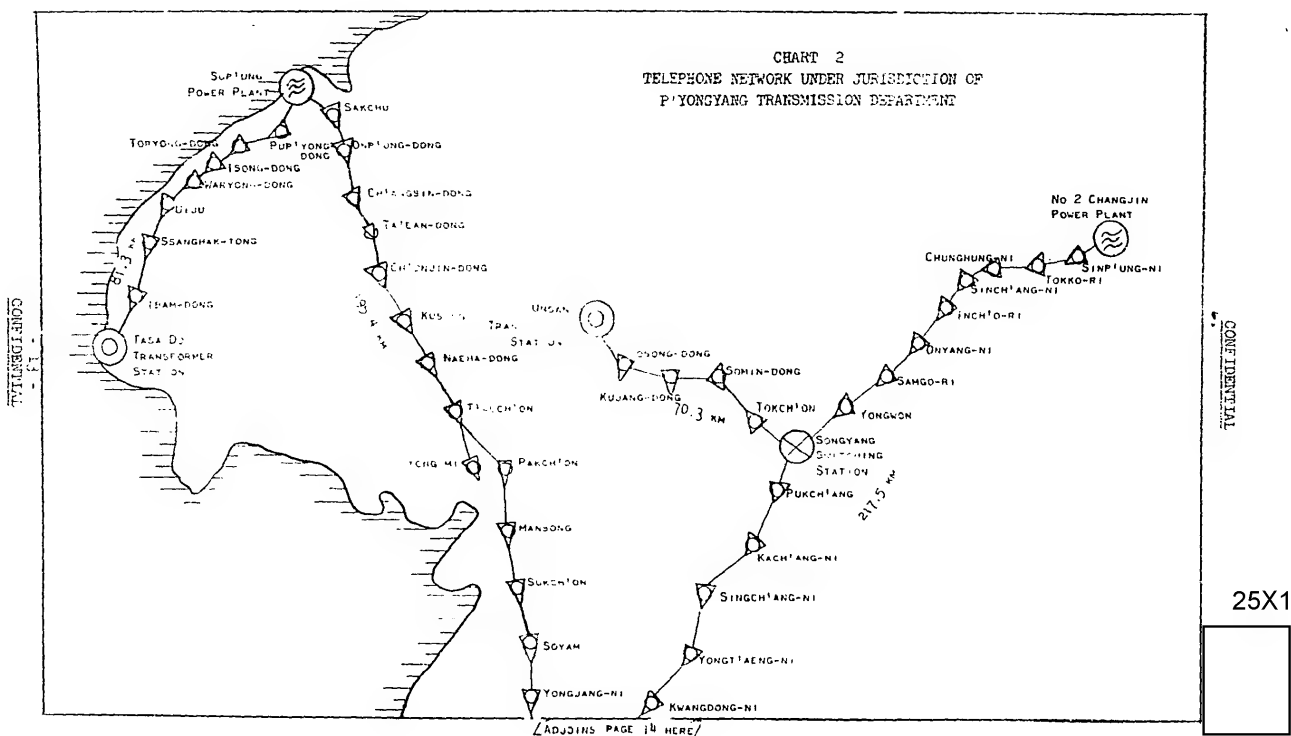


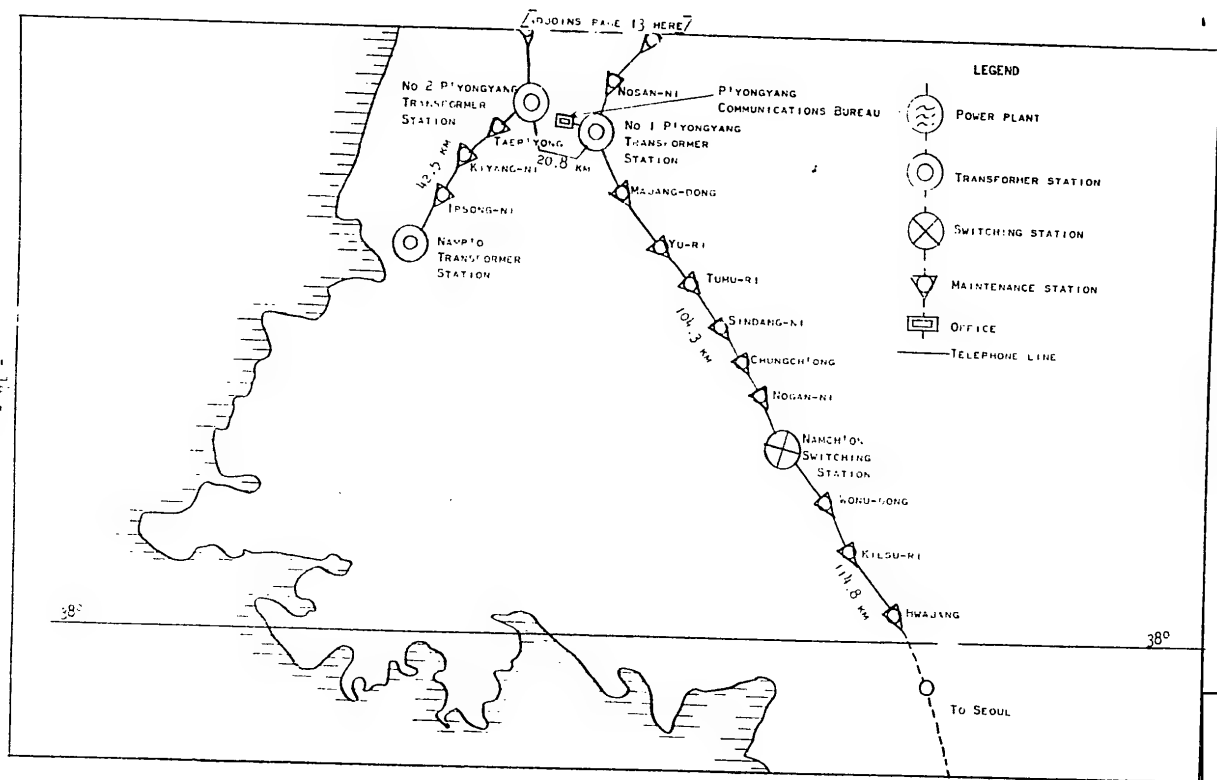
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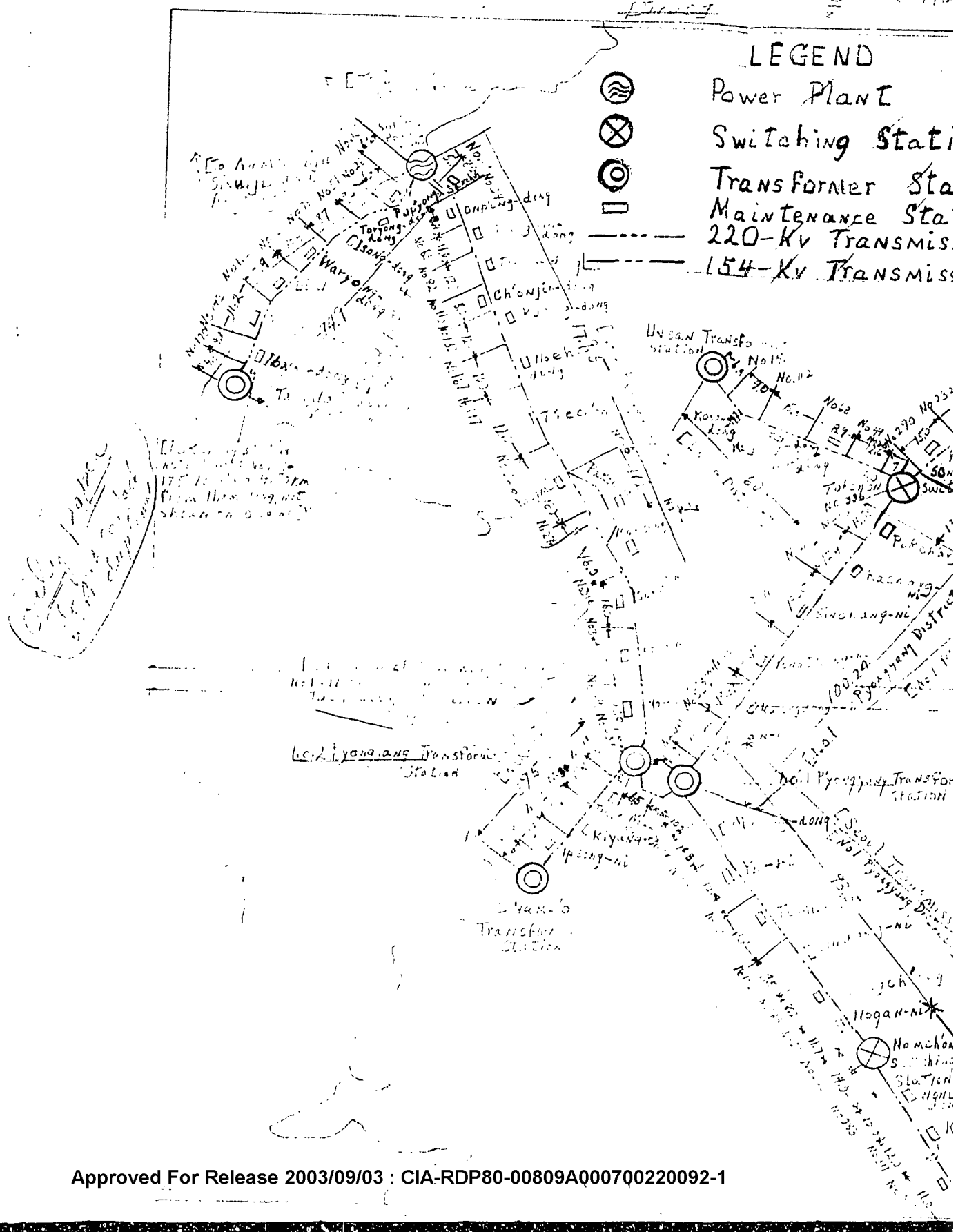




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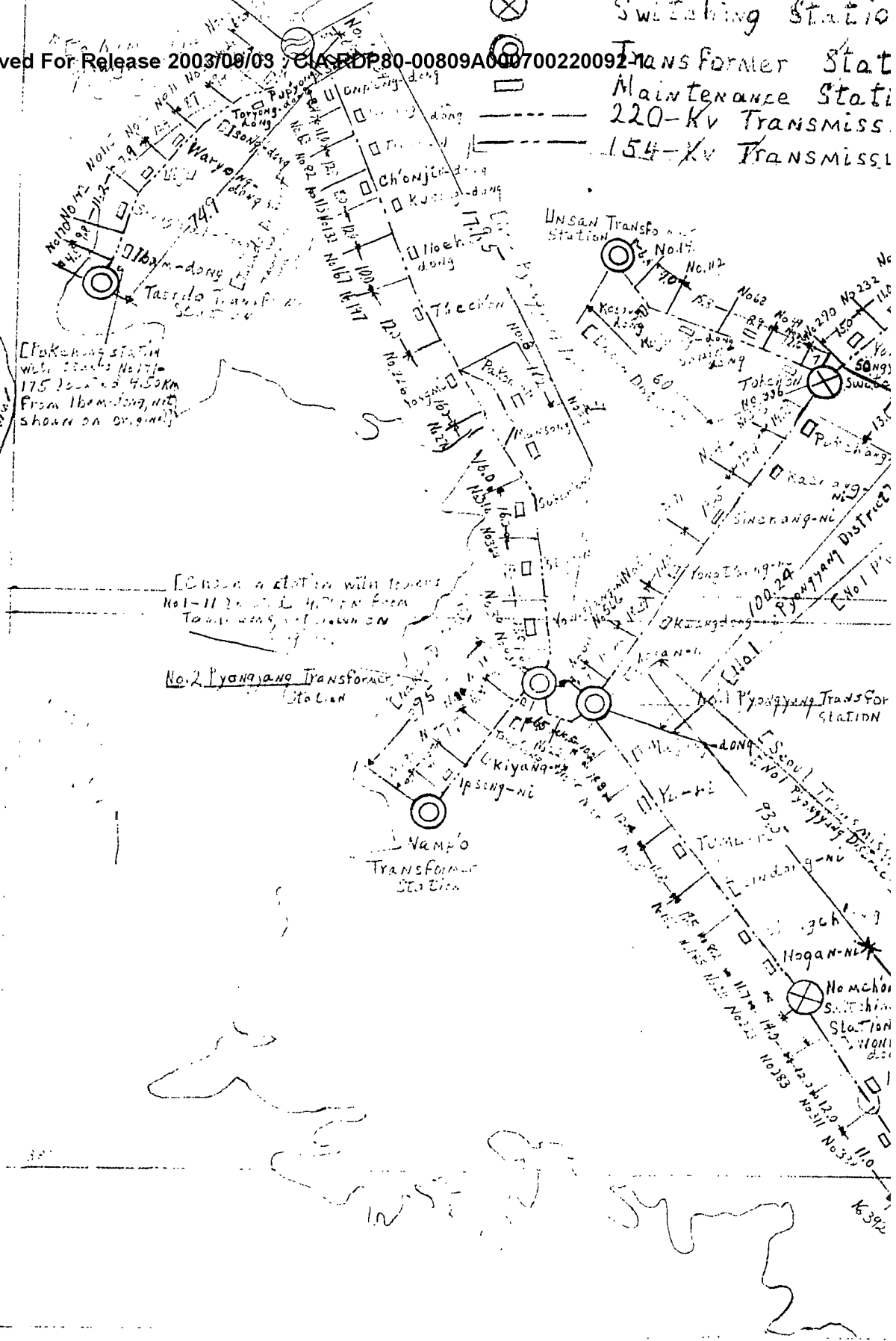
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7. NOYAL - RAN-HISTON DETECTIVE



Switching Station  
Transformer Station  
Maintenance Station  
220-KV Transmissi  
154-KV Transmissi

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not original





T'YONGYANG TRANSMISSION DEPARTMENT

## Power Plant

## Switching Station

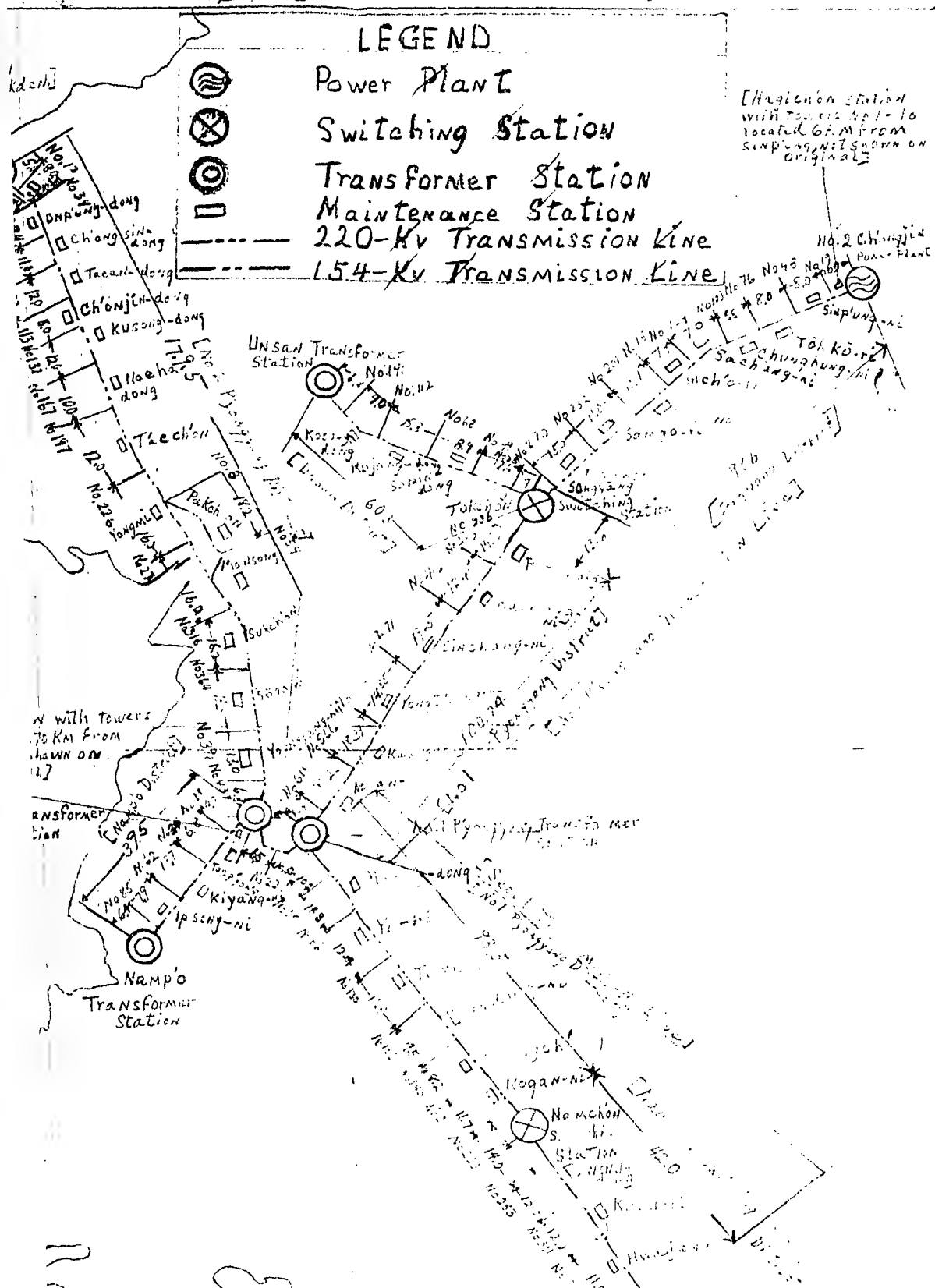
## Transformer Station

## Maintenance Station

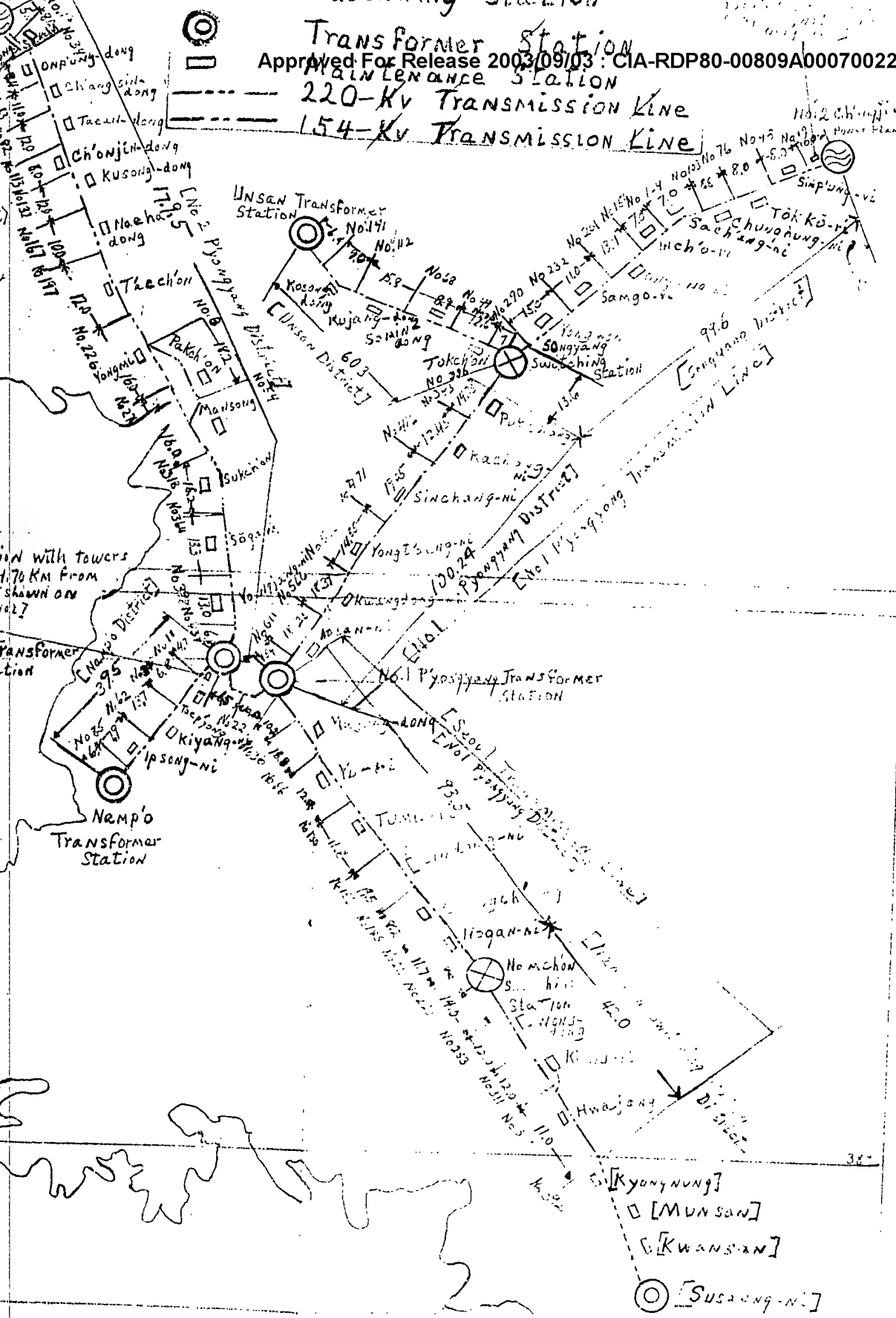
## 220-Kv Transmission Line

154-KV TRANSMISSION LINE

[Hagion's station  
with tower, Apr 1-10  
located 6 AM from  
sampling, not shown on  
original.]

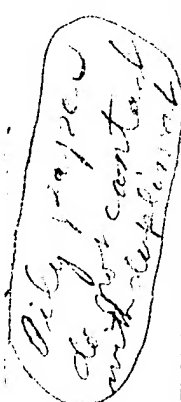


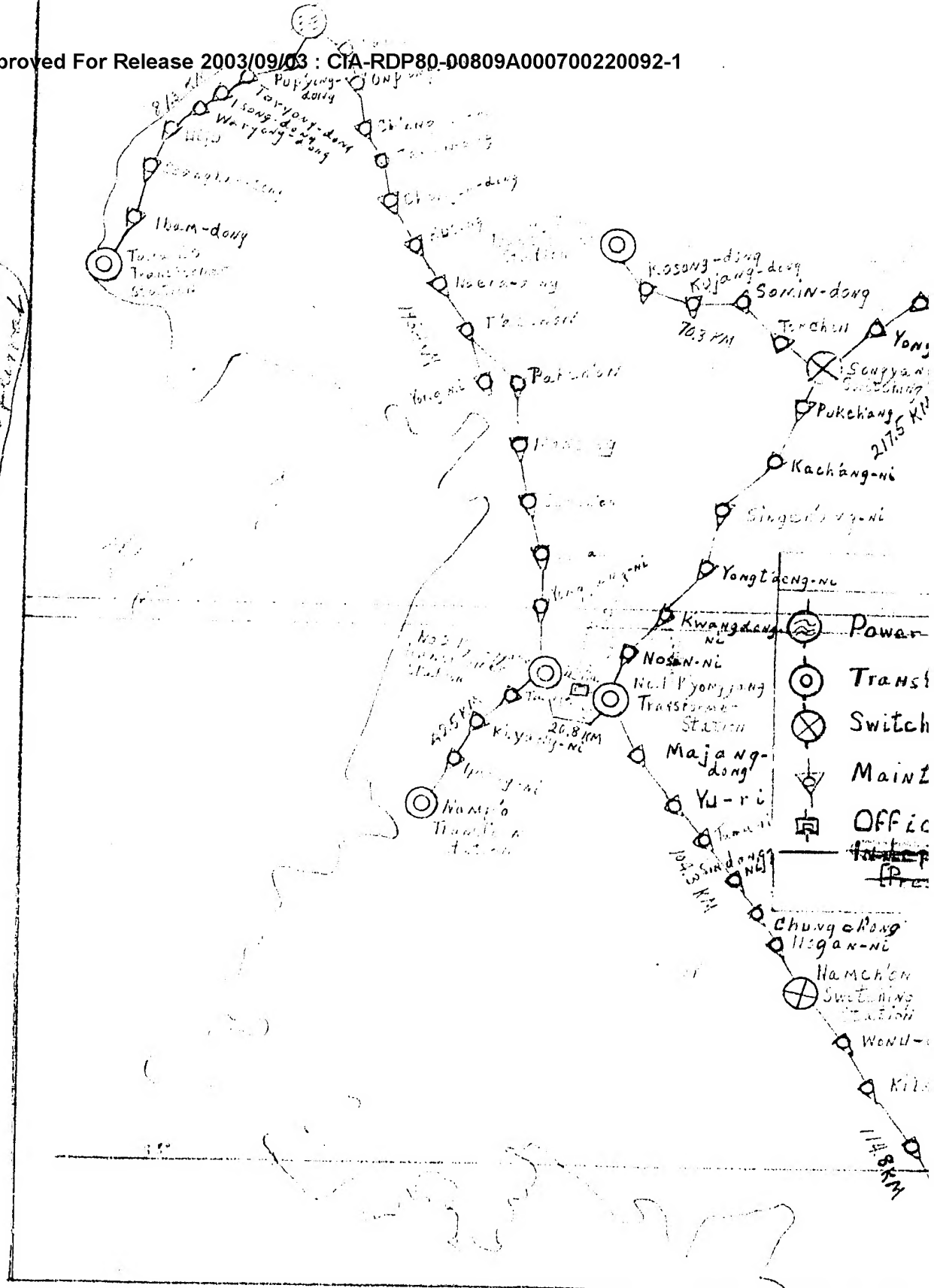
# Transformer Station Approved For Release 2003/09/03 : CIA-RDP80-00809A000700220092-1 MAINTENANCE STATION 220-KV TRANSMISSION LINE 154-KV TRANSMISSION LINE



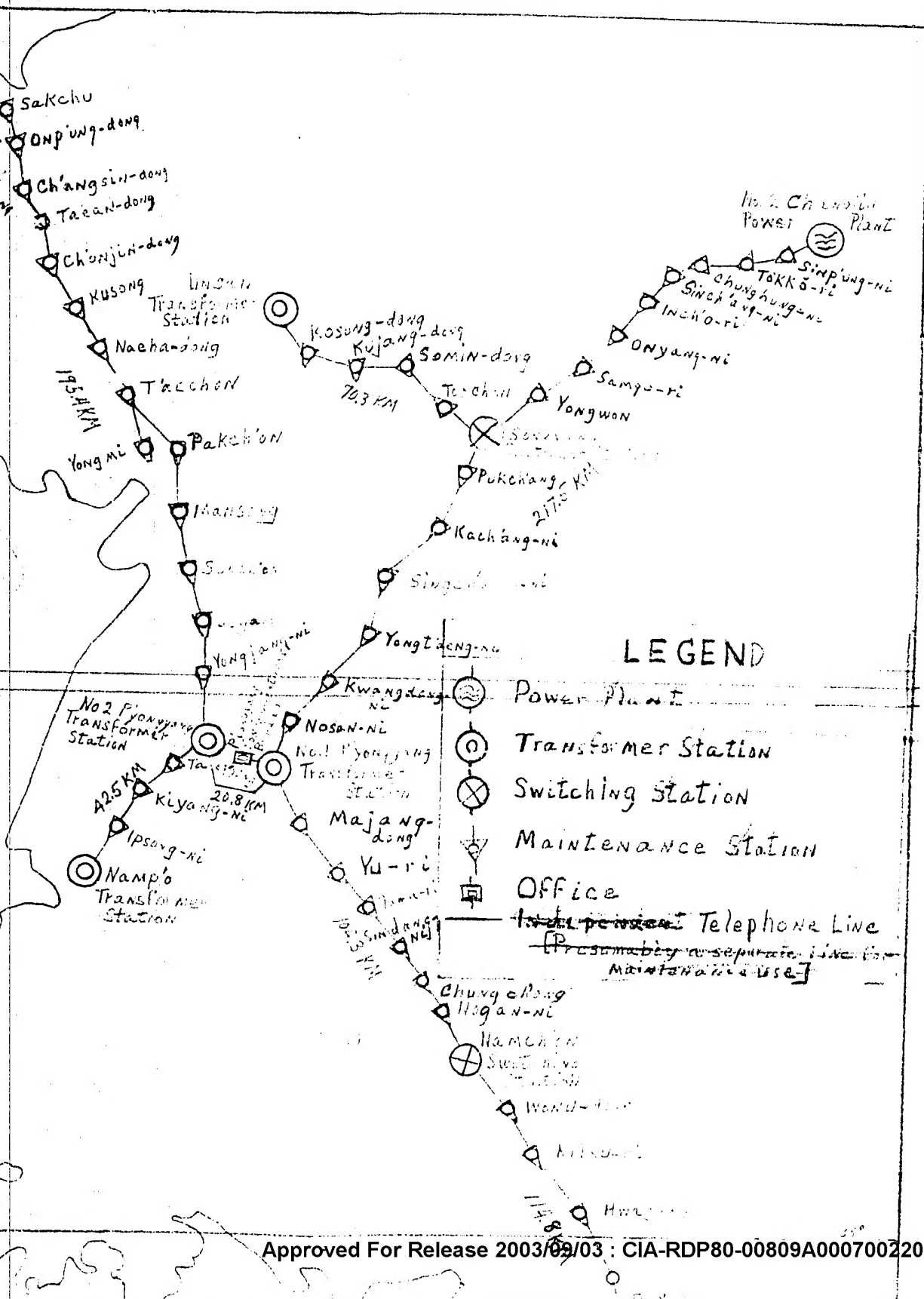
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TELEPHONE NUMBER  
ORDER INFORMATION  
SYNOPSIS TRANSMISSION DEPARTMENT





TELEPHONE NETWORK  
Under JURISDICTION OF  
YANGYANG TRANSMISSION DEPARTMENT





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